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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Sami HUUSKO

Serial No.: 10/018,166

Filed: April 5, 2002

For: Connection management method

Examiner: Liou, Jonathan
Group Art: 2616

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November 9, 2006
(Date of Deposit)

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Signature

November 9, 2006
Date of Signature

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Commissioner for Patents
P.O. Box 1450
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PRE-APPEAL BRIEF REQUEST FOR REVIEW

SIR:

Applicant hereby petitions for an additional 2-month extension of the original shortened statutory response period set in the Office Action of May 9, 2006. A check for $900 in payment of the government fee for an additional 2-month extension of time is enclosed herewith so that the period for response is extended to November 9, 2006. Any additional fees or charges required at this time in connection with the present application may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Listing of to the Claims begins on page 2 of this paper.

Remarks begin on page 5 of this paper.

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Listing of Claims:

1. (Previously Presented) A method for managing connections in a packet data radio system, comprising the steps of:

monitoring at least data packets transmitted by the packet data radio system to detect packets comprising connection state change messages related to a predetermined allocated transport layer service access point; and

determining at least one parameter of a data packet connection of the packet data radio system using information contained in the connection state message if a packet comprising a connection state change message is detected.

2. (Previously Presented) The method of claim 1, wherein said connection state change messages being monitored comprise connection setup messages.

3. (Previously Presented) The method of claim 1, wherein said connection state change messages being monitored comprise connection release messages.

4. (Previously Presented) The method of claim 1, wherein said connection state change messages being monitored comprise H. 323 connection state change messages.

5. (Previously Presented) The method of claim 1, wherein said connection state change messages being monitored comprise connection state change messages according to the Session Initiation Protocol.

6. (Previously Presented) The method of claim 1, wherein the packet data radio system comprises the General Packet Radio Service (GPRS) system.

7. (Previously Presented) The method of claim 1, wherein packet data connections of the packet data radio system are set up at least in part according to said at least one parameter.

8. (Previously Presented) The method of claim 1, wherein connections of the packet data radio system are modified at least in part according to said at least one parameter.

9. (Previously Presented) The method of claim 6, wherein said monitoring is performed by a serving General Packet Radio Service (GPRS) support node.

10. (Previously Presented) The method of claim 6, wherein said monitoring is performed by a gateway General Packet Radio Service (GPRS) support node.

11. (Previously Presented) The method of claim 6, wherein said monitoring is performed by a General Packet Radio Service (GPRS) mobile station.

12. (Previously Presented) A system for managing connections in a packet data radio system, comprising:

means for monitoring at least data packets relating to a predetermined allocated transport layer service access point, said monitored data packets being transmitted in the packet data radio system;

means for detecting a call setup message in a monitored data packet; and

means for determining at least one connection parameter based on information in the detected call setup message.

13. (Previously Presented) The system of claim 12, further comprising:

means for initiating a set up of a packet data connection of the packet data radio system at least partly based on said at least one connection parameter.

14. (Previously Presented) The system of claim 12, further comprising:

means for initiating a modification of a packet data connection of the packet data radio system at least partly based on said at least one connection parameter.

15. (Previously Presented) A network element of a packet data radio system, comprising:

means for monitoring at least data packets relating to a predetermined allocated transport layer service access point, said monitored data packets being transmitted by the network element;

means for detecting a call setup message in the monitored data packet relating to said predetermined allocated transport layer service access point; and

means for determining at least one connection parameter based on information in the detected call setup message.

16. (Previously Presented) The network element of claim 15, wherein said network element comprises a General Packet Radio Service (GPRS) network element.

17. (Previously Presented) The network element of claim 16, wherein said network element comprises a serving General Packet Radio Service (GPRS) support node.

18. (Previously Presented) The network element of claim 16, wherein said network element comprises a gateway General Packet Radio Service (GPRS) support node.

19. (Previously Presented) A mobile station, comprising:

means for monitoring at least data packets relating to a predetermined allocated transport layer service access point;

means for detecting a call setup message in a data packet; and

means for determining at least one connection parameter based on information in the detected call setup message.

REMARKS

Claims 1-19 are pending, with claims 1, 12, 15 and 19 being the independent claims. Reconsideration of the application is respectfully requested.

In the May 9, 2006 Office Action, independent claims 1, 12, 15 and 19, and dependent claims 2-3, 6-11, 13, 14 and 16-18 were rejected under 35 U.S.C. §102(a) as anticipated by WO 99/16266 ("*Forslow*"), while dependent claim 4 was rejected under 35 U.S.C. §103(a) as unpatentable over *Forslow*. For the following reasons, it is respectfully submitted that all claims of the present application are patentable over the cited reference.

The claimed invention relates to a method and system for managing connections in a packet data radio system, where data packets transmitted by the packet data radio system are monitored to detect packets comprising connection state change messages related to a predetermined allocated transport layer service access point (TSAP). If a packet comprising a connection state change message is detected, information contained in the connection state change message is used to determine at least one parameter of a packet data connection of the packet data radio system.

In contrast, *Forslow* relates to a system and method for permitting applications that are provided to mobile subscribers to select a specific quality of service (QoS) and a specific type of mobile network transfer mechanism (a circuit breaker or a packet-switched bearer) for individual application flows, instead of restricting all application flows to a single QoS and/or a single transfer mechanism (see pg. 16, line 24 thru pg. 17, line 4).

The Office Action (pg. 2, paragraph 2) states:

> Forslow disclosed a method and system for managing connections in a packet data radio network (Fig. 2, Forslow), wherein comprises:
>
> detect packets comprising connection state change messages related to a predetermined allocated transport layer service access point (Forslow teaches which control flow as a connection state change and built a transport layer by encapsulating into UDP or TCP. Pg. 20. And the system of Forslow would use TCP/UDP to control communication connection and access point port. See pg. 6. As defined in application specification, transport layer access point may be for example a specific UDP or TCP port at the IP address corresponding to the mobile station. See pg. 5 of specification).

For at least the following reasons, Applicant respectfully asserts that *Forslow* fails to teach or suggest the present claimed invention. Firstly, *Forslow* fails to teach or suggest the step of

"monitoring at least data packets transmitted by the packet data radio system to detect packets comprising connection state change messages related to a predetermined allocated transport layer service access point," i.e., as recited in independent claim 1.

In networking, the TSAP is part of the Open Systems Interconnection (OSI) IP addressing scheme. The TSAP identifies the Network Service Access Point (NSAP) between the session layer and the network layer. The NASP is the part of a network address that identifies which application on the host is sending or receiving a packet. *Forslow* simply fails to teach or suggest the monitoring step of claim 1 with respect to a TSAP.

It is disclosed at pg. 5, lines 10-16 of the specification that "the GPRS system is arranged to monitor IP telephony call setup messages, which can be performed by monitoring a transport layer service access point (TSAP), which the IP telephony system uses for call setup signaling. Such a TSAP may be for example a specific UDP (User Datagram Protocol) or TCP (Transmission Control Protocol) port at the IP address corresponding to the mobile station. The term TSAP identifier is used to refer to a particular port number or a corresponding identifier of a TSAP". In the context of the claimed invention, data packets transmitted by a data packet system are monitored to detect packets comprising connection state change messages related to a predetermined allocated transport layer service access point, i.e. at a particular PORT. The detection of connection state change messages entails the occurrence of a certain type of transaction, e.g, a corresponding call is a H.323 call. *Forslow* fails to teach such a claimed concept.

Secondly, in one embodiment of the claimed invention, as disclosed at pg. 6, lines 18-26 of the specification, the TSAP is used, for example, in the manner recited in independent claim 1. As stated at pg. 6, lines 19-22 of the specification, a well-known TSAP identifier according to the H.323 specification is a TSAP identifier that has been allocated by an authority that is in charge of the assignment of TSAP identifiers for a particular networking protocol and the related transport protocols. For example, the port 1720 has been allocated for use as a TSAP in the UDP protocol. The specification (pg. 6, lines 23-25) further states, "this means that when the UDP protocol is used as the transport protocol in H.323 connections, connection setup messages to a network element or terminal are directed to UDP port 1720 at the IP address of the network element or terminal". *Forslow* has nothing to do with such a concept.

It is simply improper to conclude that the system of *Forslow* would use "TCP/UDP to control communication connection and access point," as asserted by the Examiner, or that the functions of TSAP are implicitly taught my *Forslow*. As stated previously, the TSAP identifies the Network Service Access Point (NSAP) between the session layer and the network layer. That is, the TSAP is a port in a protocol, such as the UDP protocol. The Examiner has concluded that TSAP is a UDP protocol, based on Applicant's specification. However, such a conclusion is improper. Applicant requests that the Examiner provide a specific location of the abbreviation TSAP, or the mention of the H.323 specification in *Forslow*. Quite simply, it is impossible to locate TSAP or H.323 in *Forslow*, because each of these terms relates to specific functions and requirements that are not addressed in this publication.

Furthermore, *Forslow* (pgs. 6 and 18; Fig. 18) teaches that the Transmission Control Protocol/User Diagram Protocol (TCP/UDP) and Internet Protocol IP are used as the GPRS backbone network layer protocols, and that the TCP or UDP may be used depending on application flow characteristic. However, this is where all similarities between *Forslow* and the claimed invention end. There is nothing in the foregoing sections of *Forslow* to teach or suggest Applicant's claimed monitoring step, as recited in independent claim 1. *Forslow* teaches various protocols, but fails to teach the claimed TSAP. Moreover, independent claim 1 recites a monitoring step, whereas the Examiner (pg. 2-3 of the Office Action) asserts *Forslow* (pg. 6) teaches the use of "TCP/UDP to control communication connection and access point". Applicant thus respectfully asserts that for this additional reason *Forslow* fails to teach independent method claim 1, since independent claim 1 includes a monitoring step.

Forslow (pg. 20, lines 22) states, "application flows including control data for application sessions like conference sessions do not require codecs but instead use real-time sessions control (RTSP), session invitation (SIP), and sessions announcement (SAP) protocols. These protocols are further encapsulated into UDP or TCP to build a total transport layer". Thus, *Forslow* teaches various protocols, but fails to teach the claimed TSAP. The session announcement protocol (SAP) is not to be confused with the transfer layer service access point (i.e., a TSAP) recited in Applicant's independent claims because clearly a SAP is not a TSAP. Furthermore, the TSAP identifies the Network Service Access Point (NSAP) between the session layer and the network layer. There is nothing in *Forslow* with respect to the performance of a monitoring step ... to detect packets

comprising connection state change messages related to a predetermined allocated transport layer service access point, as recited in independent claim 1.

In view of the foregoing, independent claims 1, 12, 15 and 19 are patentable over *Forslow* and, thus reconsideration and withdrawal of the rejections under 35 U.S.C. §102(a) and §103(a) are in order, and a notice to that effect is requested.

Independent system claim 12, network claim 15 and mobile station claim 19 are all apparatus claims associated with the implementation of independent method claim 1. Accordingly, independent claims 12, 15 and 19 are patentable over *Forslow*.

In view of the patentability of independent claims 1, 12, 15 and 19, for the reasons set forth above, dependent claims 2-11, 13, 14 and 16-18 are all patentable over the prior art.

Applicant respectfully submit that this application is in condition for allowance.

Respectfully submitted,
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By _____

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